

# PATENT ABSTRACTS OF JAPAN

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(21)Application number : 2002-147242 (71)Applicant : ALOKA CO LTD  
ALOKA SYSTEM ENGINEERING  
CO LTD

(22)Date of filing : 22.05.2002 (72)Inventor : KOBAYASHI MASAKI  
TABEI TOSHIKI

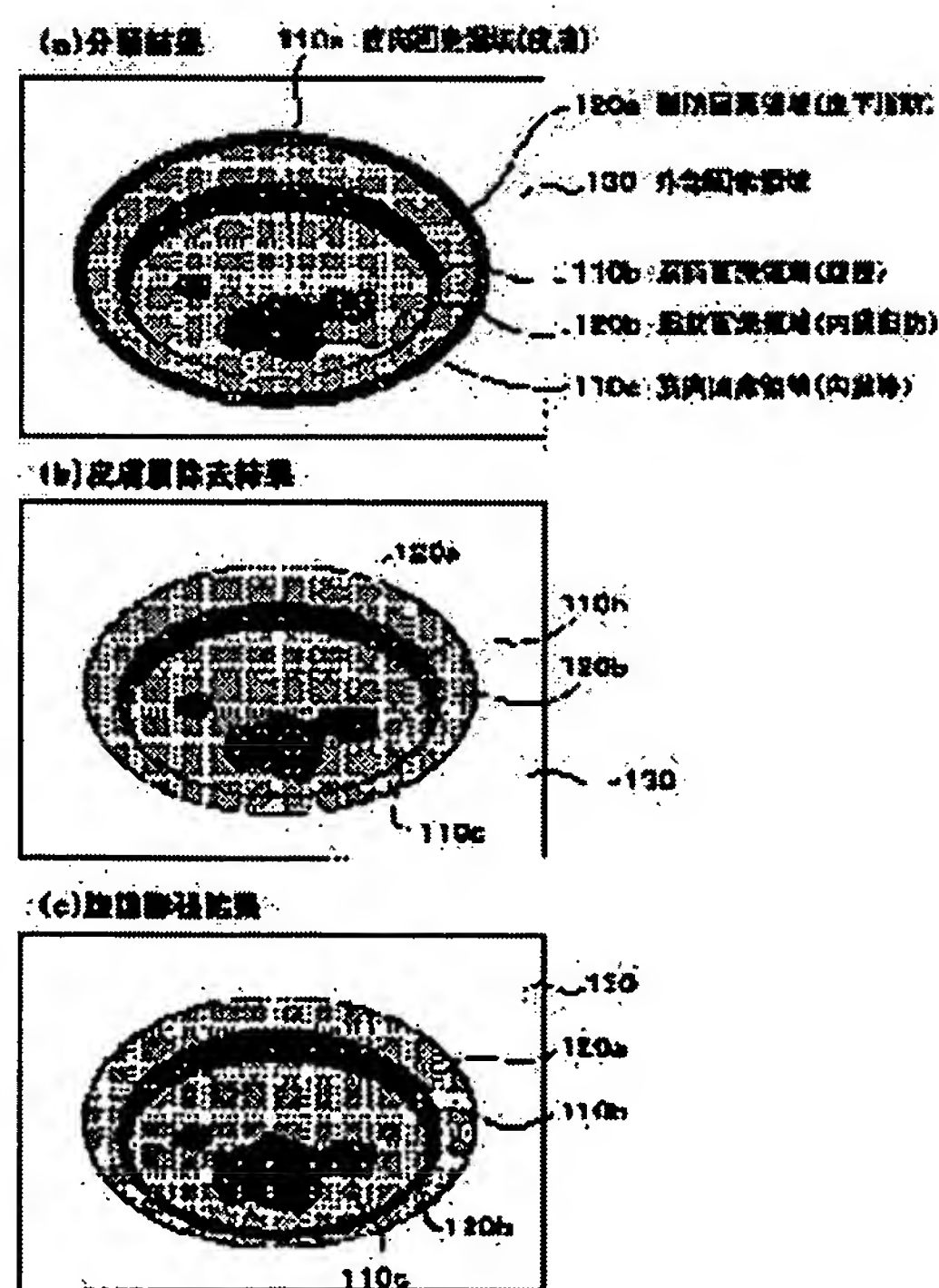
## (54) TOMOGRAPHIC IMAGE PROCESSOR

### (57)Abstract:

PROBLEM TO BE SOLVED: To automatically discriminate subcutaneous fat from visceral fat in the tomographic image of the abdomen.

SOLUTION: (a) The abdomen CT tomographic images by an X-ray CT apparatus is divided into muscle pixel regions 110a, 110b, 110c indicating skin or muscles, fat pixel regions 120a, 120b indicating fat, and an external region 130 indicating the outside of a subject. (b) The muscle pixels adjacent to the external pixel region 130 are successively replaced with the external pixels, so as to remove the muscle pixel region 110a indicating skin. (c) The muscle pixels are expanded in response to a skin layer removal result, so that the muscle pixel region 110b expressing peritonea fully encloses the fat image

region 120b corresponding to the visceral fat. The fat pixels adjacent to the external pixel region 130, and a connection component for connecting them are labeled with values indicating the subcutaneous fat on the basis of the expansion result. The subcutaneous area is expanded inward for the portion of expansion in the muscle pixels. On the basis of a classification result (a), the fat pixel regions other than the subcutaneous fat are recognized





as the visceral fat.

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